


Sub E1
cont.  tetrafluoroethyl difluoromethyl ether, said foaming agent compositions selected from the group consisting of:

		composition % by weight
I)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); n-pentane	1-95 99-5
II)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); iso-pentane	1-99 99-1
III)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); dimethyl ketone (acetone)	1-60 99-40
IV)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); 1,1,1,3,3-pentafluorobutane (CF ₃ CH ₂ CF ₂ CH ₃ , HFC 365 mfc)	1-99 99-1
V)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); 1,1,1,4,4,4-hexafluorobutane (CF ₃ CH ₂ CH ₂ CF ₃ , HFC 356 ffa)	1-40 99-60
VI)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); methoxymethyl methylether	1-96 99-14
VII)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); n-hexane	30-99 70-1
VIII)	1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether	1-93

(HCF₂OCF₂OCF₂H);
n-pentane

99-7

IX) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
dimethyl ketone (acetone)

30-99

70-1

X) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
n-hexane

15-99

85-1

XI) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
ethyl alcohol

5-99

95-1

XII) difluoromethoxy-bis
(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
1,1,1,3,3-pentafluorobutane
(CF₃CH₂CF₂CH₃, HFC 365 mfc)
a hydrocarbon selected from
n-pentane or isopentane

1-64

98-1

1-35 and

XIII) difluoromethoxy-bis
(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
1,1,1,4,4,4-hexafluorobutane
(CF₃CH₂CH₂CF₃, HFC 356 ffa)
a hydrocarbon selected from
n-pentane or isopentane

1-22

98-43

1-35

wherein

(1) in the foaming agent compositions II, III, IV, V and VI, up to 40% by weight of the difluoromethoxy-bis(difluoromethyl ether) is optionally substituted with 1-difluoromethoxy-1,1,2,2-tetrafluoroethyldifluoromethyl ether;

Sub E1
cont.

(2) in the foaming agent compositions IX and X, up to 40% by weight of 1-difluoromethoxy-1,1,2,2-tetrafluoroethyl difluoromethyl ether is optionally substituted by difluoromethoxy-bis(difluoromethyl) ether;

D1

(3) in the foaming agent compositions I and VII, up to 50% by weight of difluoromethoxy-bis(difluoromethyl ether) is optionally substituted by 1-difluoromethoxy-1,1,2,2-tetrafluoroethyldifluoromethyl ether;

(4) in the foaming agent compositions VIII and X, up to 50% by weight of 1-difluoromethoxy-1,1,2,2-tetrafluoroethyldifluoromethyl ether is optionally substituted with difluoromethoxy-bis(difluoromethyl) ether.

Claim 3 (Amended). The process according to claim 1, wherein the foaming agent compositions are selected from the group consisting of:

- D2
- | | | |
|----|--|--------------------------|
| A) | difluoromethoxy-bis
(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-pentane | 62% by wt.
38% by wt. |
| B) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
iso-pentane | 63% by wt.
36% by wt. |
| C) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
dimethyl ketone (acetone) | 42% by wt.
58% by wt. |
| D) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,3,3-pentafluorobutane
($\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$, HFC 356 mfc) | 60% by wt.
40% by wt. |
| E) | difluoromethoxy-
bis(difluoromethyl ether) | 20% by wt. |

(HCF₂OCF₂OCF₂H);
1,1,1,4,4,4-hexafluorobutane
(CF₃CH₂CH₂CF₃, HFC 356 ffa)

80% by wt.

- F) difluoromethoxy-
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
methoxymethyl methyl ether

59% by wt.

41% by wt.

- G) difluoromethoxy-
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
n-hexane

75% by wt.

25% by wt.

- H) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
(HCF₂OCF₂CF₂OCF₂H);
n-pentane

61% by wt.

39% by wt.

- I) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
(HCF₂OCF₂CF₂OCF₂H);
dimethyl ketone (acetone)

79% by wt.

21% by wt.

- L) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
(HCF₂OCF₂CF₂OCF₂H);
n-hexane

74% by wt.

26% by wt. and

- M) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
(HCF₂OCF₂CF₂OCF₂H);
ethyl alcohol

95% by wt.

5% by wt.

D²
Sub E2
Claim 12 (Amended). The process according to claim 1, wherein the compositions are
selected from the group consisting of:

composition
% by weight

- D³*
I) difluoromethoxy
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
n-pentane

1-95

99-5

Sub E

II)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); iso-pentane	1-99 99-1
IV)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); 1,1,1,3,3-pentafluorobutane (CF ₃ CH ₂ CF ₂ CH ₃ , HFC 365 mfc)	1-99 99-1
V)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); 1,1,1,4,4,4-hexafluorobutane (CF ₃ CH ₂ CH ₂ CF ₃ , HFC 356 ffa)	1-40 99-60
VI)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); methoxymethyl methylether	1-96 99-14
VII)	difluoromethoxy bis(difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); n-hexane	30-99 70-1
VIII)	1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether (HCF ₂ OCF ₂ OCF ₂ H); n-pentane	1-93 99-7 and
X)	1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether (HCF ₂ OCF ₂ OCF ₂ H); n-hexane	15-99 85-1
and		
A)	difluoromethoxy-bis (difluoromethyl ether) (HCF ₂ OCF ₂ OCF ₂ H); n-pentane	62% by wt. 38% by wt.

Sub E2
cont.

D3

- | | | |
|----|---|------------------------------|
| B) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
iso-pentane | 63% by wt.
36% by wt. |
| D) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,3,3-pentafluorobutane
($\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$, HFC 356 mfc) | 60% by wt.
40% by wt. |
| E) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,4,4,4-hexafluorobutane
($\text{CF}_3\text{CH}_2\text{CH}_2\text{CF}_3$, HFC 356 ffa) | 20% by wt.
80% by wt. |
| F) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
methoxymethyl methyl ether | 59% by wt.
41% by wt. |
| G) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-hexane | 75% by wt.
25% by wt. |
| H) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-pentane | 61% by wt.
39% by wt. and |
| L) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-hexane | 74% by wt.
26% by wt. |

Sub E3
D4

Claim 18 (Amended). The process according to claim 1, wherein the compositions are selected from the group consisting of:

- | | composition
% by weight |
|---|----------------------------|
| I) difluoromethoxy
bis(difluoromethyl ether) | 1-95 |

(HCF₂OCF₂OCF₂H);
n-pentane

99-5

II) difluoromethoxy
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
iso-pentane

1-99

99-1

III) difluoromethoxy
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
dimethyl ketone (acetone)

1-60

99-40

VII) difluoromethoxy
bis(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
n-hexane

30-99

70-1

VIII) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
n-pentane

1-93

99-7

IX) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
dimethyl ketone (acetone)

30-99

70-1

X) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
n-hexane

15-99

85-1

XI) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
(HCF₂OCF₂OCF₂H);
ethyl alcohol

5-99

95-1

XII) difluoromethoxy-bis
(difluoromethyl ether)
(HCF₂OCF₂OCF₂H);
1,1,1,3,3-pentafluorobutane
(CF₃CH₂CF₂CH₃, HFC 365 mfc)

1-64

98-1

Sub E3
cont

a hydrocarbon selected from
n-pentane or isopentane

1-35 and

XIII) difluoromethoxy-bis
(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,4,4,4-hexafluorobutane
($\text{CF}_3\text{CH}_2\text{CH}_2\text{CF}_3$, HFC 356 ffa)
a hydrocarbon selected from
n-pentane or isopentane

1-22

98-43

and

D4

A) difluoromethoxy-bis
(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-pentane

62% by wt.

38% by wt.

B) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
iso-pentane

63% by wt.

36% by wt.

C) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
dimethyl ketone (acetone)

42% by wt.

58% by wt.

G) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-hexane

75% by wt.

25% by wt.

H) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-pentane

61% by wt.

39% by wt.

I) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
dimethyl ketone (acetone)

79% by wt.

21% by wt.

L) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-hexane

74% by wt.

26% by wt. and

Sub E3
cont.
D5

M) 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
ethyl alcohol

95% by wt.
5% by wt.

Sub E4

Claim 22 (Amended). Polyurethane compositions comprising the foaming

compositions selected from the foaming compositions:

	composition % by weight
I) difluoromethoxy bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); n-pentane	1-95 99-5
II) difluoromethoxy bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); iso-pentane	1-99 99-1
III) difluoromethoxy bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); dimethyl ketone (acetone)	1-60 99-40
VII) difluoromethoxy bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); n-hexane	30-99 70-1
VIII) 1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); n-pentane	1-93 99-7
IX) 1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); dimethyl ketone (acetone)	30-99 70-1

D5

Sub E4
cont 1

DS

X)	1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); n-hexane	15-99 85-1
XI)	1-difluoromethoxy 1,1,2,2-tetrafluoroethyl difluoromethyl ether ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); ethyl alcohol	5-99 95-1
XII)	difluoromethoxy-bis (difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); 1,1,1,3,3-pentafluorobutane ($\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$, HFC 365 mfc) a hydrocarbon selected from n-pentane or isopentane	1-64 98-1 1-35 and
XIII)	difluoromethoxy-bis (difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); 1,1,1,4,4,4-hexafluorobutane ($\text{CF}_3\text{CH}_2\text{CH}_2\text{CF}_3$, HFC 356 ffa) a hydrocarbon selected from n-pentane or isopentane	1-22 98-43 1-35
and		
A)	difluoromethoxy-bis (difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); n-pentane	62% by wt. 38% by wt.
B)	difluoromethoxy- bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); iso-pentane	63% by wt. 36% by wt.
C)	difluoromethoxy- bis(difluoromethyl ether) ($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); dimethyl ketone (acetone)	42% by wt. 58% by wt.

Sub E4
cont,

- | | | |
|----|---|------------------------------|
| G) | difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-hexane | 75% by wt.
25% by wt. |
| H) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-pentane | 61% by wt.
39% by wt. |
| I) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
dimethyl ketone (acetone) | 79% by wt.
21% by wt. |
| L) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
n-hexane | 74% by wt.
26% by wt. and |
| M) | 1-difluoromethoxy-1,1,2,2-tetra-
fluoroethyl difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$);
ethyl alcohol | 95% by wt.
5% by wt. |

D5

Claim 23 (Amended). Thermoplastic polymer compositions containing foaming agents,
said foaming agents selected from the group consisting of:

- | | composition
% by weight |
|--|----------------------------|
| I) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-pentane | 1-95
99-5 |
| II) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
iso-pentane | 1-99
99-1 |
| IV) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$); | 1-99 |

Sub E4
cont.

1,1,1,3,3-pentafluorobutane
($\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$, HFC 365 mfc)

99-1

V) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,4,4,4-hexafluorobutane
($\text{CF}_3\text{CH}_2\text{CH}_2\text{CF}_3$, HFC 356 ffa)

1-40

99-60

VI) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
methoxymethyl methylether

1-96

99-14

VII) difluoromethoxy
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-hexane

30-99

70-1 and

VIII) 1-difluoromethoxy
1,1,2,2-tetrafluoroethyl
difluoromethyl ether
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-pentane

1-93

99-7

and

A) difluoromethoxy-bis
(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
n-pentane

62% by wt.

38% by wt.

B) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
iso-pentane

63% by wt.

36% by wt.

D) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,3,3-pentafluorobutane
($\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$, HFC 356 mfc)

60% by wt.

40% by wt.

E) difluoromethoxy-
bis(difluoromethyl ether)
($\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$);
1,1,1,4,4,4-hexafluorobutane

20% by wt.

80% by wt.